

### ABSTRACT OF THE DISCLOSURE

The present invention relates to temperature control elements, spindle assemblies, and wafer processing assemblies. According to one embodiment of the present invention, a wafer processing assembly is provided comprising a rotary spindle assembly, at least one liquid source, a controller, a wafer support, and a wafer processing bowl. The rotary spindle assembly comprises a rotary drive motor, a rotary spindle coupled to the rotary drive motor, a heat regulating element arranged about the rotary spindle, and a heat regulating flange secured to the rotary drive motor. The controller is coupled to the liquid source and a temperature sensor coupled to one or both of the heat regulating element and the heat regulating flange and is programmed to be responsive to a temperature signal generated by the temperature sensor.